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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,590	08/01/2003	Chin-Kun Hsieh	ADTP0042USA	1589
27765	7590	11/16/2004	EXAMINER VO, TUYET THI	
NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE) P.O. BOX 506 MERRIFIELD, VA. 22116			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/604,590

Applicant(s)

HSIEH ET AL.

Examiner

Tuyet Vo

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. **Line 6 of [0023]**, suggest to delete “314” after “housing” and insert --320-- for consistency with the drawings.

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 7, 12, 13, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrell (US Pat. 5,143,433).

Farrell discloses a back light unit (Figs. 1, 8 and 9) disposed under a display panel (12) comprising:

light tube generators (18) arranged in parallel for providing light sources;  
an uneven diffusing sheet (16) interposed between the light source generators (18) and the display panel (12) for scattering the light sources generated from the light source generators to the display panel; and  
a reflecting sheet (20) disposed under the light source generators (18) for reflecting the light sources upward to the diffusing plate (16), the reflecting sheet comprising a plurality of

Art Unit: 2821

openings/slots (23) disposed directly under the light sources, wherein the openings/slots inherently functions as a mean for transferring an energy/heat of light sources.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 11, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of Yamamoto et al. (US Pat. 6,089,739), hereinafter Yamamoto.

Farrell discloses substantially the claim invention except for mentioning a housing disposed under and around a reflecting sheet while Yamamoto discloses a light source (Fig. 1) comprising a housing (7), disposed under and surround a reflecting sheet (3), having heat dissipating holes (7a, 7b).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a housing with heat dissipating holes as taught by Yamamoto into Farrell back lighting system in order to prevent/reduce damage due to thermal/electrical contact exposing to a user and the lighting system as well.

6. Claims 5, 8, 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell.

Farrell discloses substantially the claim invention as noted above in that the width of slots are small and these slots disposed on the bottom of the parabolic reflecting sheet while the claim invention required the holes/openings being made at the top of the V-shape reflecting sheet with a width less than half width of the light tube.

It would have been an obvious matter of design choice to make/select reflecting sheet with any shape such as V-shape having any size of holes disposed at a side/bottom/top of the

Art Unit: 2821

reflecting sheet in order to enhance the level of light energy radiation upon optimum sizes, shapes or location established between open slots and a diffusing sheet, so as to obtain efficiency of back lighting system as desired. Such implementation is considered as a routine skill in the art.

7. Claims 10, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of Peppers (US Pat. 4,598,347).

Farrell discloses substantially the claim invention as noted above except for comprising an uneven housing disposed under and surrounding the reflecting sheet.

Peppers discloses a lighting unit comprising a light source (32), a reflecting sheet (36) disposed totally on an uneven housing with fins for reducing heat concentration in the lighting unit.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the housing as taught by Peppers into the Farrell lighting system in order to extend the lamp using time by minimize deteriorate of lamp when exposed to excess/accumulate heat.

#### *Citation of pertinent prior art*

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Arima (US Pat. 4,652,979) discloses lamp assembly for emitting a beam of light at an angle to its optical axis.

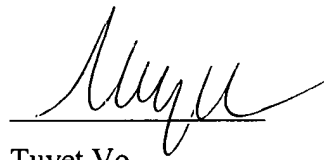
#### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is 571 272 1830. The examiner can normally be reached on Mon-Fri.

Art Unit: 2821

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571 272 1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

A handwritten signature in cursive script, appearing to read 'Tuyet Vo', is written over a horizontal line.

Tuyet Vo

Primary Examiner

November 14, 2004